



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VIII

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SEP 16 1992

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Ref: 8HWM-FF

Mr. Frazer Lockhart
DOE/Rocky Flats Office
P.O. Box 928
Golden, CO 80402-0928

Dear Mr. Lockhart:

EPA has reviewed the draft Standard Operating Procedures (SOPs) for the global positioning system and the in-situ characterization for radionuclides presented within procedures numbers GT.27, GT.28, GT.29 (Rev. 0, draft B), and GT.30 (Rev. 0, draft D). We believe the following comments must be addressed prior to approval of these SOPs.

There appears to be a need to describe more fully the output data file specification format within the SOP GT.27. There is also no description of how the position data will be merged with the radiation data to give complete information on the measurement point. Additionally, there needs to be criteria establishing the adequacy of the position accuracy. One to five meters may or may not be acceptable depending on the size of the area to be surveyed and the grid spacing.

Within the "In-situ Characterization for Radionuclides" SOP, GT.30, there is a lack of specificity in setting the operating parameters prior to data acquisition (bias voltage, acquisition time, amplifier settings, etc.). The procedure must define a "reality check" of the system, i.e., it does not verify that the system is actually developing and storing a real gamma spectrum. In addition, there are no procedures presented to demonstrate that the spectrometer is properly calibrated or that the detector is set up and positioned properly on the measurement site. There appears to be no procedure for entering the location coordinates, sample identification, and other similar data for storage on the magnetic medium.

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In sum, the SOPs seem correct but incomplete as there are some important steps missing. Concerning the GT.30 procedure, there are no hints about the quality control steps one would have to take to assure that the resulting data is legitimate. Gamma spectroscopy, especially in a field situation, is a complicated operation and the application of this SOP will not guarantee that the data acquired with it will be correct or defensible. If you have any additional questions, please give me a call.

Sincerely,

A handwritten signature in black ink, appearing to read "Martin Hestmark".

Martin Hestmark, Manager
Rocky Flats Project

cc: Gary Baughman, CDH